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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/628,981	07/29/2003	Christopher R. Hornberg	390-010852-US (PAR)	7137
7590 09/27/2005		EXAMINER		
Geza C. Ziegler, Jr.			GHYKA, ALEXANDER G	
PERMAN & GREEN, LLP 425 Post Road			ART UNIT	PAPER NUMBER
Fairfield, CT 06824			2812	
		DATE MAILED: 09/27/2005		

Please find below and/or attached an Office communication concerning this application or proceeding.

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION. Extensions of them may be seriable under the provision of 37 CFR 1.138(a). In no event, however, may a reply be timely filed to the provision of 37 CFR 1.138(a). In no event, however, may a reply be timely filed or the provision of the provision of 37 CFR 1.138(a). In no event, however, may a reply be timely filed or the provision of the communication of the provision of the		Application No.	Applicant(s)				
Alexander G. Ghyka 2812	Office Action Comments	10/628,981	HORNBERG ET AL.				
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DETAILED ACTION

The RCE of 8/15/2005 has been entered. The amendment of 8/15/2005 has been entered. Claims 1-17 are now under consideration.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-12 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The afore mentioned claims fail to set forth the metes and bounds of the present invention as it would not be clear to a practitioner in the art if the minimum value is the same as the minimum temperature, or it it denotes a different parameter. Further clarification is required.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

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The factual inquiries set forth in *Graham* v. *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

- 1. Determining the scope and contents of the prior art.
- 2. Ascertaining the differences between the prior art and the claims at issue.
- 3. Resolving the level of ordinary skill in the pertinent art.
- 4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 1-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Stoddard et al. (US 6,207,937).

The present Claims generally require a method of minimizing thermal reactor temperature overshoot and stabilization time during a boat push comprising the steps of: reducing a temperature setpoint of each zone in the reactor to a minimum value; monitoring each zone for a minimum temperature; and as the temperature in the reactor begins to increase during the boat push, ramping the temperature back to an original setpoint.

Stoddard et al disclose a temperature control system for a thermal reactor, and disclose a processing recipe which comprises set-point temperatures, temperature process durations and temperature ramp rates which are set by the user. See column 1, lines 45-55. Moreover, Stoddard describes the problems of temperature over-shoot. See column 3, lines 25-30 and Figure 1. Stoddard et al also disclose spike thermocouples and profile thermocouples which are located in different zones of the reactor and read on present Claims 2 and 8-12. See column 7, lines 30-45 and column 9, lines 35-55. Furthermore, Stoddard discloses reducing overshoot and discloses that the ramp-rate of the modified ramp function may be reduced as it approaches the temperature set-point value (as required in present claims 3 and 5-7) in order to improve temperature control and avoid wafer slip. See column 15, line 60 to column 16, line 10. The Examiner notes that the claims read on a reactor having one zone and one temperature setpoint.

Therefore, Stoddard et al disclose all of the presently claimed limitations with the exception of reducing a temperature setpoint to a minimum value.

It would have been obvious to one of ordinary skill in the art, at the time of the invention, to choose a minimum set-point as required by the present claims, as Stoddard discloses that it is known to choose a set point, and the selection of a setpoint as required by the present claims is simply a matter of optimization which would readily be apparent to one of ordinary skill in the art. Discovery of an optimum value of a result effective variable in a known process is ordinarily within the skill of the art. See *In re Aller* 105 USPQ 233. Therefore, a *prima facie* case of obviousness is established.

Allowable Subject Matter

Claims 13-17 are allowed.

The cited prior art does not disclose or suggest reducing current setpoints for each zone; monitoring each zone of the thermal reactor to determine a minimum temperature for each zone; ramping the reduced current setpoints back to an original setpoint as required by the afore mentioned claims.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alexander G. Ghyka whose telephone number is (571) 272-1669. The examiner can normally be reached on Monday through Thursday during general business hours.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Lebentritt can be reached on (571)272-1873. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system.

Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see

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http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

AGG June 15, 2005

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